

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P938662

Luminaire Tested: HLB4LSFS5-700LM-3000K

Issue Date: 1/15/2025

Test Information

Test Method: LM-79-2019
Report Number: P938662
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2404364A001)
Test Lab:
Issue Date: 1/15/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: HLB4LSFS5-700LM-3000K
Description: 4IN SELECTABLE LUMENS, 90CRI, DIMMING TO 10%
Light Source: SELECTABLE CCT 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 787.2 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.3 / 1.38
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

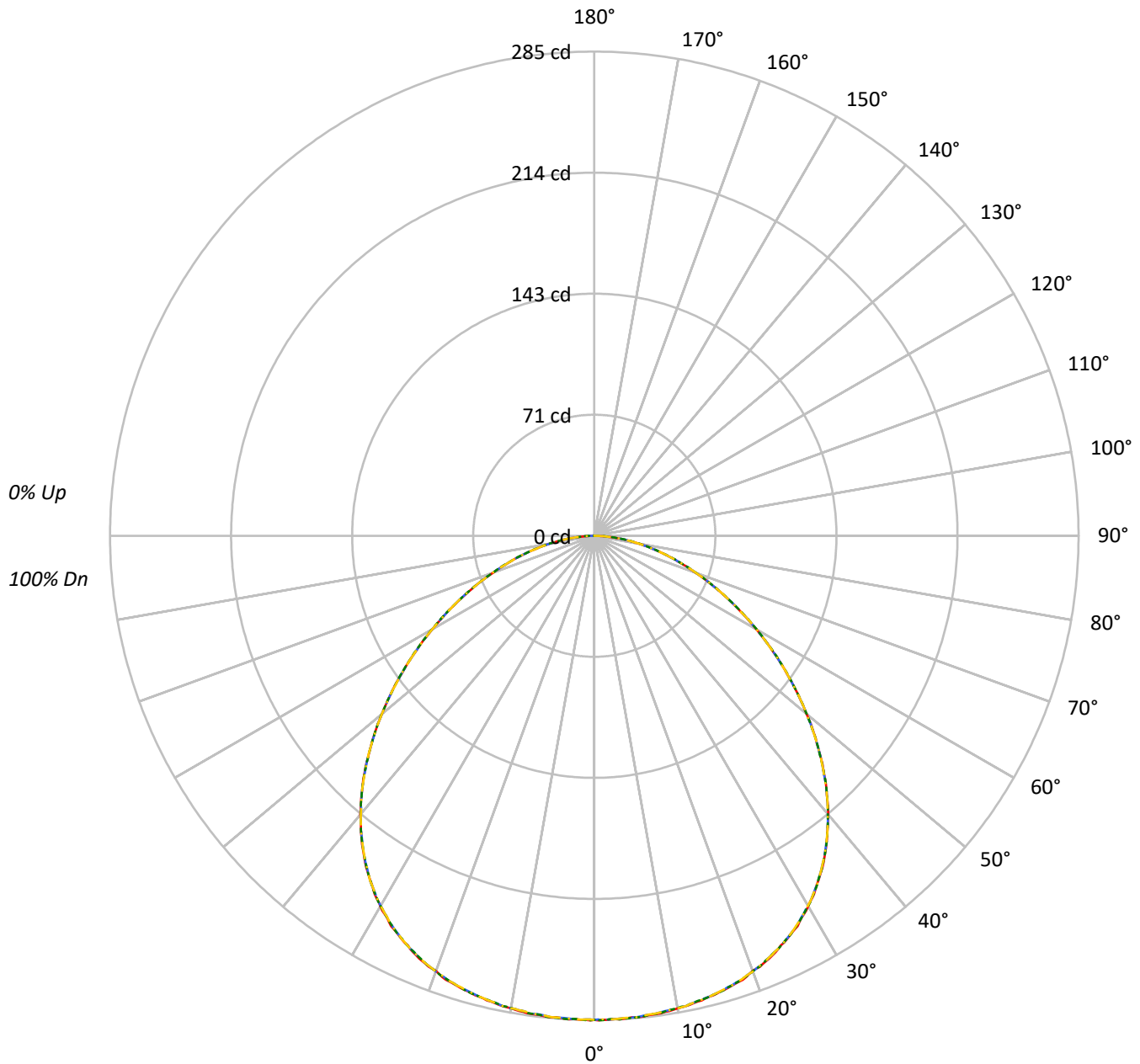
Input Watts (W): 7.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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CATALOG NUMBER: HLB4LSFS5-700LM-3000K

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73
3	91	81	73	66	89	79	72	66	76	70	65	73	68	63	71	66	62
4	83	72	63	56	81	70	62	56	68	61	55	66	59	55	63	58	54
5	77	64	55	49	75	63	55	49	61	54	48	59	53	47	57	52	47
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41
7	66	53	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	35867	35867	35867	35867
5°	35954	35954	35954	35954
10°	36101	36075	36101	36075
15°	36338	36338	36338	36338
20°	36508	36535	36508	36535
25°	36687	36673	36687	36673
30°	36591	36562	36591	36562
35°	36119	36073	36119	36073
40°	35190	35124	35190	35124
45°	33780	33763	33780	33763
50°	31933	31972	31933	31972
55°	29928	29950	29928	29950
60°	27737	27813	27737	27813
65°	25490	25610	25490	25610
70°	23329	23513	23329	23513
75°	21298	21492	21298	21492
80°	19278	19568	19278	19568
85°	16606	16894	16606	16894

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 89.5°

Luminance: 36054 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.1	3.4
10°-20°	78.8	10.0
20°-30°	121.6	15.5
30°-40°	146.6	18.6
40°-50°	146.0	18.5
50°-60°	121.9	15.5
60°-70°	85.3	10.8
70°-80°	46.8	5.9
80°-90°	13.3	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	227.5	28.9
0°-40°	374.0	47.5
0°-60°	641.9	81.5
0°-90°	787.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	787.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	285	285	285	285	285	
5°	285	285	285	285	285	27
15°	279	279	279	279	279	79
25°	264	264	264	264	264	122
35°	235	235	235	235	235	147
45°	190	190	190	190	190	146
55°	136	136	136	136	136	122
65°	86	86	86	86	86	85
75°	44	44	44	44	44	47
85°	12	12	12	12	12	13
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0
0.5°	285.3	285.0	284.7	284.8	285.2	284.8	284.7	285.0	285.3	285.0	284.7
1°	285.1	284.8	284.7	284.8	285.2	284.8	284.7	284.8	285.1	284.8	284.7
1.5°	285.1	284.9	284.9	284.8	284.9	284.8	284.9	284.9	285.1	284.9	284.9
2°	284.8	284.9	284.8	284.8	284.7	284.8	284.8	284.9	284.8	284.9	284.8
2.5°	284.8	284.8	284.7	284.8	284.6	284.8	284.7	284.8	284.8	284.8	284.7
3°	285.1	284.8	284.6	284.7	285.0	284.7	284.6	284.8	285.1	284.8	284.6
3.5°	284.9	284.9	284.4	284.5	284.9	284.5	284.4	284.9	284.9	284.9	284.4
4°	284.6	284.5	284.4	284.3	284.8	284.3	284.4	284.5	284.6	284.5	284.4
4.5°	284.3	284.3	284.4	284.4	284.6	284.4	284.4	284.3	284.3	284.3	284.4
5°	284.6	284.4	284.4	284.3	284.6	284.3	284.4	284.4	284.6	284.4	284.4
5.5°	284.6	284.3	284.3	284.1	284.6	284.1	284.3	284.3	284.6	284.3	284.3
6°	284.3	284.0	283.9	283.9	284.3	283.9	283.9	284.0	284.3	284.0	283.9
6.5°	284.0	283.9	283.6	283.9	283.8	283.9	283.6	283.9	284.0	283.9	283.6
7°	283.9	283.7	283.6	283.6	283.6	283.6	283.6	283.7	283.9	283.7	283.6
7.5°	283.9	283.6	283.4	283.4	283.7	283.4	283.4	283.6	283.9	283.6	283.4
8°	283.7	283.4	283.2	283.2	283.6	283.2	283.2	283.4	283.7	283.4	283.2
8.5°	283.3	283.2	282.9	283.1	283.0	283.1	282.9	283.2	283.3	283.2	282.9
9°	283.2	282.9	282.7	282.8	282.7	282.8	282.7	282.9	283.2	282.9	282.7
9.5°	282.9	282.7	282.4	282.6	282.5	282.6	282.4	282.7	282.9	282.7	282.4
10°	282.5	282.5	282.4	282.2	282.3	282.2	282.4	282.5	282.5	282.5	282.4
10.5°	282.3	282.2	282.2	282.1	282.0	282.1	282.2	282.2	282.3	282.2	282.2
11°	282.0	281.9	282.0	281.8	282.0	281.8	282.0	281.9	282.0	281.9	282.0
11.5°	281.8	281.5	281.5	281.4	281.5	281.4	281.5	281.5	281.8	281.5	281.5
12°	281.3	281.2	281.0	280.9	281.0	280.9	281.0	281.2	281.3	281.2	281.0
12.5°	280.9	280.8	280.7	280.6	280.6	280.6	280.7	280.8	280.9	280.8	280.7
13°	280.7	280.6	280.4	280.5	280.3	280.5	280.4	280.6	280.7	280.6	280.4
13.5°	280.1	280.3	279.9	280.3	280.1	280.3	279.9	280.3	280.1	280.3	279.9
14°	279.7	279.8	279.6	279.6	279.7	279.6	279.6	279.8	279.7	279.8	279.6
14.5°	279.4	279.2	279.2	279.1	279.2	279.1	279.2	279.2	279.4	279.2	279.2
15°	278.9	278.7	278.6	278.7	278.9	278.7	278.6	278.7	278.9	278.7	278.6
15.5°	278.3	278.2	278.1	278.2	278.5	278.2	278.1	278.2	278.3	278.2	278.1
16°	278.0	277.8	277.7	277.7	278.0	277.7	277.7	277.8	278.0	277.8	277.7
16.5°	277.5	277.3	277.1	277.3	277.2	277.3	277.1	277.3	277.5	277.3	277.1
17°	277.0	276.8	276.7	276.6	276.8	276.6	276.7	276.8	277.0	276.8	276.7
17.5°	276.4	276.1	276.0	276.0	276.2	276.0	276.0	276.1	276.4	276.1	276.0
18°	276.0	275.6	275.6	275.3	275.7	275.3	275.6	275.6	276.0	275.6	275.6
18.5°	275.6	275.0	275.0	274.9	274.9	274.9	275.0	275.0	275.6	275.0	275.0
19°	274.7	274.5	274.1	274.1	274.4	274.1	274.1	274.5	274.7	274.5	274.1
19.5°	273.6	273.7	273.4	273.6	273.7	273.6	273.4	273.7	273.6	273.7	273.4
20°	272.6	273.0	273.0	272.9	272.8	272.9	273.0	273.0	272.6	273.0	273.0
20.5°	272.1	272.3	272.0	272.2	272.1	272.2	272.0	272.3	272.1	272.3	272.0
21°	271.8	271.6	271.2	271.1	271.7	271.1	271.2	271.6	271.8	271.6	271.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	269.3	269.0	268.7	268.9	268.8	268.9	268.7	269.0	269.3	269.0	268.7
23°	268.3	268.1	267.9	267.9	267.8	267.9	267.9	268.1	268.3	268.1	267.9
23.5°	267.4	267.0	266.8	266.9	266.9	266.9	266.8	267.0	267.4	267.0	266.8
24°	266.3	266.3	266.1	265.8	266.1	265.8	266.1	266.3	266.3	266.3	266.1
24.5°	264.9	265.4	265.0	264.9	265.1	264.9	265.0	265.4	264.9	265.4	265.0
25°	264.2	264.0	264.0	263.9	264.1	263.9	264.0	264.0	264.2	264.0	264.0
25.5°	263.2	262.9	263.0	262.9	262.9	262.9	263.0	262.9	263.2	262.9	263.0
26°	262.1	261.9	261.8	261.8	262.0	261.8	261.8	261.9	262.1	261.9	261.8
26.5°	260.9	260.8	260.6	260.6	260.9	260.6	260.6	260.8	260.9	260.8	260.6
27°	259.9	259.6	259.5	259.4	259.6	259.4	259.5	259.6	259.9	259.6	259.5
27.5°	259.0	258.5	258.2	258.3	258.3	258.3	258.2	258.5	259.0	258.5	258.2
28°	257.4	257.1	257.0	257.0	257.1	257.0	257.0	257.1	257.4	257.1	257.0
28.5°	255.7	255.7	255.5	255.6	255.7	255.6	255.5	255.7	255.7	255.7	255.5
29°	254.6	254.4	254.2	254.2	254.4	254.2	254.2	254.4	254.6	254.4	254.2
29.5°	253.4	253.0	252.8	252.7	253.0	252.7	252.8	253.0	253.4	253.0	252.8
30°	251.8	251.5	251.5	251.3	251.6	251.3	251.5	251.5	251.8	251.5	251.5
30.5°	250.1	249.9	250.1	249.9	250.3	249.9	250.1	249.9	250.1	249.9	250.1
31°	248.8	248.5	248.5	248.5	248.7	248.5	248.5	248.5	248.8	248.5	248.5
31.5°	247.4	247.2	246.8	246.8	247.1	246.8	246.8	247.2	247.4	247.2	246.8
32°	245.5	245.5	245.2	245.1	245.6	245.1	245.2	245.5	245.5	245.5	245.2
32.5°	243.6	243.7	243.7	243.5	243.8	243.5	243.7	243.7	243.6	243.7	243.7
33°	242.0	242.0	242.2	241.9	241.8	241.9	242.2	242.0	242.0	242.0	242.2
33.5°	240.4	240.4	240.2	240.2	240.2	240.2	240.2	240.4	240.4	240.4	240.2
34°	238.6	238.7	238.3	238.4	238.6	238.4	238.3	238.7	238.6	238.7	238.3
34.5°	237.0	236.7	236.5	236.4	236.8	236.4	236.5	236.7	237.0	236.7	236.5
35°	235.1	234.7	234.7	234.7	234.8	234.7	234.7	234.7	235.1	234.7	234.7
35.5°	233.1	233.0	232.8	232.8	232.8	232.8	232.8	233.0	233.1	233.0	232.8
36°	231.0	231.1	230.8	230.9	231.1	230.9	230.8	231.1	231.0	231.1	230.8
36.5°	229.1	229.1	228.8	228.9	228.9	228.9	228.8	229.1	229.1	229.1	228.8
37°	227.1	227.0	226.8	226.8	226.9	226.8	226.8	227.0	227.1	227.0	226.8
37.5°	224.9	224.9	224.6	224.7	224.9	224.7	224.6	224.9	224.9	224.9	224.6
38°	222.8	222.9	222.6	222.6	222.8	222.6	222.6	222.9	222.8	222.9	222.6
38.5°	220.6	220.7	220.4	220.5	220.6	220.5	220.4	220.7	220.6	220.7	220.4
39°	218.3	218.3	218.3	218.2	218.4	218.2	218.3	218.3	218.3	218.3	218.3
39.5°	216.3	216.1	216.1	216.1	216.0	216.1	216.1	216.1	216.3	216.1	216.1
40°	214.2	214.0	213.8	213.9	213.8	213.9	213.8	214.0	214.2	214.0	213.8
40.5°	211.8	211.6	211.3	211.5	211.6	211.5	211.3	211.6	211.8	211.6	211.3
41°	209.4	209.2	209.1	209.1	209.5	209.1	209.1	209.2	209.4	209.2	209.1
41.5°	207.0	206.8	206.8	206.8	206.9	206.8	206.8	206.8	207.0	206.8	206.8
42°	204.5	204.5	204.5	204.4	204.6	204.4	204.5	204.5	204.5	204.5	204.5
42.5°	202.2	202.1	202.1	202.1	202.2	202.1	202.1	202.1	202.2	202.1	202.1
43°	199.8	199.7	199.5	199.5	199.8	199.5	199.5	199.7	199.8	199.7	199.5
43.5°	197.4	197.1	197.0	197.1	197.3	197.1	197.0	197.1	197.4	197.1	197.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	189.8	189.5	189.5	189.6	189.7	189.6	189.5	189.5	189.8	189.5	189.5
45.5°	187.1	187.0	187.0	187.0	186.9	187.0	187.0	187.0	187.1	187.0	187.0
46°	184.4	184.5	184.5	184.4	184.3	184.4	184.5	184.5	184.4	184.5	184.5
46.5°	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8
47°	179.1	179.1	179.2	179.2	179.2	179.2	179.2	179.1	179.1	179.1	179.2
47.5°	176.6	176.4	176.4	176.4	176.7	176.4	176.4	176.4	176.6	176.4	176.4
48°	174.0	173.8	173.8	173.8	174.0	173.8	173.8	173.8	174.0	173.8	173.8
48.5°	171.4	171.3	171.3	171.2	171.3	171.2	171.3	171.3	171.4	171.3	171.3
49°	168.8	168.7	168.6	168.5	168.7	168.5	168.6	168.7	168.8	168.7	168.6
49.5°	165.9	165.9	165.8	165.9	166.0	165.9	165.8	165.9	165.9	165.9	165.8
50°	163.1	163.1	163.1	163.3	163.3	163.3	163.1	163.1	163.1	163.1	163.1
50.5°	160.5	160.4	160.4	160.7	160.5	160.7	160.4	160.4	160.5	160.4	160.4
51°	157.8	157.8	157.8	157.8	157.9	157.8	157.8	157.8	157.8	157.8	157.8
51.5°	155.0	155.0	155.1	155.2	155.2	155.2	155.1	155.0	155.0	155.0	155.1
52°	152.4	152.4	152.4	152.4	152.5	152.4	152.4	152.4	152.4	152.4	152.4
52.5°	149.7	149.6	149.7	149.7	149.8	149.7	149.7	149.6	149.7	149.6	149.7
53°	147.1	147.0	146.9	147.1	147.1	147.1	146.9	147.0	147.1	147.0	146.9
53.5°	144.4	144.2	144.3	144.4	144.5	144.4	144.3	144.2	144.4	144.2	144.3
54°	141.5	141.4	141.5	141.7	141.9	141.7	141.5	141.4	141.5	141.4	141.5
54.5°	138.8	138.8	138.9	139.1	139.3	139.1	138.9	138.8	138.8	138.8	138.9
55°	136.4	136.2	136.2	136.5	136.5	136.5	136.2	136.2	136.4	136.2	136.2
55.5°	133.8	133.5	133.6	133.8	133.9	133.8	133.6	133.5	133.8	133.5	133.6
56°	130.9	130.8	130.9	131.1	131.1	131.1	130.9	130.8	130.9	130.8	130.9
56.5°	128.4	128.3	128.3	128.4	128.6	128.4	128.3	128.3	128.4	128.3	128.3
57°	125.7	125.7	125.6	125.8	125.9	125.8	125.6	125.7	125.7	125.7	125.6
57.5°	123.1	122.9	123.0	123.1	123.4	123.1	123.0	122.9	123.1	122.9	123.0
58°	120.5	120.3	120.4	120.6	120.6	120.6	120.4	120.3	120.5	120.3	120.4
58.5°	117.9	117.9	117.9	118.0	118.1	118.0	117.9	117.9	117.9	117.9	117.9
59°	115.2	115.2	115.3	115.5	115.5	115.5	115.3	115.2	115.2	115.2	115.3
59.5°	112.7	112.6	112.8	112.8	113.0	112.8	112.8	112.6	112.7	112.6	112.8
60°	110.2	110.1	110.3	110.3	110.5	110.3	110.3	110.1	110.2	110.1	110.3
60.5°	107.6	107.6	107.6	107.9	108.0	107.9	107.6	107.6	107.6	107.6	107.6
61°	105.1	105.1	105.2	105.3	105.4	105.3	105.2	105.1	105.1	105.1	105.2
61.5°	102.6	102.6	102.8	102.8	102.9	102.8	102.8	102.6	102.6	102.6	102.8
62°	100.1	100.2	100.3	100.4	100.4	100.4	100.3	100.2	100.1	100.2	100.3
62.5°	97.6	97.7	97.8	97.9	98.0	97.9	97.8	97.7	97.6	97.7	97.8
63°	95.2	95.2	95.3	95.4	95.5	95.4	95.3	95.2	95.2	95.2	95.3
63.5°	92.8	92.9	92.9	93.0	93.1	93.0	92.9	92.9	92.8	92.9	92.9
64°	90.4	90.5	90.6	90.7	90.7	90.7	90.6	90.5	90.4	90.5	90.6
64.5°	87.9	88.1	88.2	88.3	88.3	88.3	88.2	88.1	87.9	88.1	88.2
65°	85.6	85.8	85.9	86.0	86.0	86.0	85.9	85.8	85.6	85.8	85.9
65.5°	83.4	83.4	83.6	83.6	83.7	83.6	83.6	83.4	83.4	83.4	83.6
66°	81.1	81.1	81.2	81.2	81.4	81.2	81.2	81.1	81.1	81.1	81.2

TEST NUMBER: P938662

CATALOG NUMBER: HLB4LSFS5-700LM-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	74.3	74.3	74.3	74.6	74.6	74.6	74.3	74.3	74.3	74.3	74.3
68°	72.1	72.1	72.2	72.3	72.4	72.3	72.2	72.1	72.1	72.1	72.2
68.5°	69.8	69.9	70.0	70.1	70.2	70.1	70.0	69.9	69.8	69.9	70.0
69°	67.7	67.7	67.9	68.0	68.0	68.0	67.9	67.7	67.7	67.7	67.9
69.5°	65.6	65.6	65.7	65.8	66.0	65.8	65.7	65.6	65.6	65.6	65.7
70°	63.4	63.5	63.6	63.7	63.9	63.7	63.6	63.5	63.4	63.5	63.6
70.5°	61.4	61.4	61.5	61.7	61.7	61.7	61.5	61.4	61.4	61.4	61.5
71°	59.3	59.3	59.4	59.6	59.7	59.6	59.4	59.3	59.3	59.3	59.4
71.5°	57.3	57.3	57.3	57.6	57.7	57.6	57.3	57.3	57.3	57.3	57.3
72°	55.3	55.3	55.3	55.5	55.7	55.5	55.3	55.3	55.3	55.3	55.3
72.5°	53.3	53.3	53.4	53.6	53.7	53.6	53.4	53.3	53.3	53.3	53.4
73°	51.4	51.3	51.5	51.7	51.7	51.7	51.5	51.3	51.4	51.3	51.5
73.5°	49.5	49.4	49.5	49.7	49.8	49.7	49.5	49.4	49.5	49.4	49.5
74°	47.5	47.5	47.5	47.8	48.0	47.8	47.5	47.5	47.5	47.5	47.5
74.5°	45.7	45.6	45.7	45.9	46.1	45.9	45.7	45.6	45.7	45.6	45.7
75°	43.8	43.8	43.9	44.1	44.2	44.1	43.9	43.8	43.8	43.8	43.9
75.5°	42.0	42.0	42.0	42.2	42.4	42.2	42.0	42.0	42.0	42.0	42.0
76°	40.2	40.1	40.2	40.3	40.6	40.3	40.2	40.1	40.2	40.1	40.2
76.5°	38.4	38.4	38.4	38.6	38.7	38.6	38.4	38.4	38.4	38.4	38.4
77°	36.7	36.6	36.7	36.9	37.0	36.9	36.7	36.6	36.7	36.6	36.7
77.5°	35.0	34.9	35.0	35.1	35.3	35.1	35.0	34.9	35.0	34.9	35.0
78°	33.2	33.2	33.2	33.4	33.6	33.4	33.2	33.2	33.2	33.2	33.2
78.5°	31.5	31.5	31.5	31.8	32.0	31.8	31.5	31.5	31.5	31.5	31.5
79°	29.9	29.9	29.9	30.1	30.3	30.1	29.9	29.9	29.9	29.9	29.9
79.5°	28.2	28.2	28.2	28.4	28.6	28.4	28.2	28.2	28.2	28.2	28.2
80°	26.6	26.5	26.6	26.8	27.0	26.8	26.6	26.5	26.6	26.5	26.6
80.5°	25.0	25.1	25.0	25.1	25.3	25.1	25.0	25.1	25.0	25.1	25.0
81°	23.4	23.4	23.4	23.6	23.7	23.6	23.4	23.4	23.4	23.4	23.4
81.5°	21.8	21.9	21.9	22.0	22.1	22.0	21.9	21.9	21.8	21.9	21.9
82°	20.3	20.3	20.3	20.5	20.6	20.5	20.3	20.3	20.3	20.3	20.3
82.5°	18.7	18.8	18.9	19.0	19.0	19.0	18.9	18.8	18.7	18.8	18.9
83°	17.2	17.2	17.3	17.5	17.5	17.5	17.3	17.2	17.2	17.2	17.3
83.5°	15.8	15.8	15.8	16.0	16.1	16.0	15.8	15.8	15.8	15.8	15.8
84°	14.3	14.3	14.4	14.5	14.6	14.5	14.4	14.3	14.3	14.3	14.4
84.5°	12.9	12.9	13.0	13.0	13.1	13.0	13.0	12.9	12.9	12.9	13.0
85°	11.5	11.5	11.5	11.6	11.7	11.6	11.5	11.5	11.5	11.5	11.5
85.5°	10.1	10.1	10.1	10.1	10.2	10.1	10.1	10.1	10.1	10.1	10.1
86°	8.7	8.7	8.7	8.7	8.8	8.7	8.7	8.7	8.7	8.7	8.7
86.5°	7.3	7.3	7.5	7.5	7.7	7.5	7.5	7.3	7.3	7.3	7.5
87°	5.9	6.1	6.3	6.3	6.7	6.3	6.3	6.1	5.9	6.1	6.3
87.5°	4.5	4.9	5.1	5.1	5.6	5.1	5.1	4.9	4.5	4.9	5.1
88°	3.6	3.7	3.9	4.2	4.6	4.2	3.9	3.7	3.6	3.7	3.9
88.5°	2.6	2.7	2.9	3.4	3.9	3.4	2.9	2.7	2.6	2.7	2.9



TEST NUMBER: P938662
CATALOG NUMBER: HLB4LSFS5-700LM-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P938662

CATALOG NUMBER: HLB4LSFS5-700LM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	285.0	285.0	285.0	285.0	285.0	285.0
0.5°	284.8	285.2	284.8	284.7	285.0	285.3
1°	284.8	285.2	284.8	284.7	284.8	285.1
1.5°	284.8	284.9	284.8	284.9	284.9	285.1
2°	284.8	284.7	284.8	284.8	284.9	284.8
2.5°	284.8	284.6	284.8	284.7	284.8	284.8
3°	284.7	285.0	284.7	284.6	284.8	285.1
3.5°	284.5	284.9	284.5	284.4	284.9	284.9
4°	284.3	284.8	284.3	284.4	284.5	284.6
4.5°	284.4	284.6	284.4	284.4	284.3	284.3
5°	284.3	284.6	284.3	284.4	284.4	284.6
5.5°	284.1	284.6	284.1	284.3	284.3	284.6
6°	283.9	284.3	283.9	283.9	284.0	284.3
6.5°	283.9	283.8	283.9	283.6	283.9	284.0
7°	283.6	283.6	283.6	283.6	283.7	283.9
7.5°	283.4	283.7	283.4	283.4	283.6	283.9
8°	283.2	283.6	283.2	283.2	283.4	283.7
8.5°	283.1	283.0	283.1	282.9	283.2	283.3
9°	282.8	282.7	282.8	282.7	282.9	283.2
9.5°	282.6	282.5	282.6	282.4	282.7	282.9
10°	282.2	282.3	282.2	282.4	282.5	282.5
10.5°	282.1	282.0	282.1	282.2	282.2	282.3
11°	281.8	282.0	281.8	282.0	281.9	282.0
11.5°	281.4	281.5	281.4	281.5	281.5	281.8
12°	280.9	281.0	280.9	281.0	281.2	281.3
12.5°	280.6	280.6	280.6	280.7	280.8	280.9
13°	280.5	280.3	280.5	280.4	280.6	280.7
13.5°	280.3	280.1	280.3	279.9	280.3	280.1
14°	279.6	279.7	279.6	279.6	279.8	279.7
14.5°	279.1	279.2	279.1	279.2	279.2	279.4
15°	278.7	278.9	278.7	278.6	278.7	278.9
15.5°	278.2	278.5	278.2	278.1	278.2	278.3
16°	277.7	278.0	277.7	277.7	277.8	278.0
16.5°	277.3	277.2	277.3	277.1	277.3	277.5
17°	276.6	276.8	276.6	276.7	276.8	277.0
17.5°	276.0	276.2	276.0	276.0	276.1	276.4
18°	275.3	275.7	275.3	275.6	275.6	276.0
18.5°	274.9	274.9	274.9	275.0	275.0	275.6
19°	274.1	274.4	274.1	274.1	274.5	274.7
19.5°	273.6	273.7	273.6	273.4	273.7	273.6
20°	272.9	272.8	272.9	273.0	273.0	272.6
20.5°	272.2	272.1	272.2	272.0	272.3	272.1
21°	271.1	271.7	271.1	271.2	271.6	271.8



TEST NUMBER: P938662

CATALOG NUMBER: HLB4LSFS5-700LM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	268.9	268.8	268.9	268.7	269.0	269.3
23°	267.9	267.8	267.9	267.9	268.1	268.3
23.5°	266.9	266.9	266.9	266.8	267.0	267.4
24°	265.8	266.1	265.8	266.1	266.3	266.3
24.5°	264.9	265.1	264.9	265.0	265.4	264.9
25°	263.9	264.1	263.9	264.0	264.0	264.2
25.5°	262.9	262.9	262.9	263.0	262.9	263.2
26°	261.8	262.0	261.8	261.8	261.9	262.1
26.5°	260.6	260.9	260.6	260.6	260.8	260.9
27°	259.4	259.6	259.4	259.5	259.6	259.9
27.5°	258.3	258.3	258.3	258.2	258.5	259.0
28°	257.0	257.1	257.0	257.0	257.1	257.4
28.5°	255.6	255.7	255.6	255.5	255.7	255.7
29°	254.2	254.4	254.2	254.2	254.4	254.6
29.5°	252.7	253.0	252.7	252.8	253.0	253.4
30°	251.3	251.6	251.3	251.5	251.5	251.8
30.5°	249.9	250.3	249.9	250.1	249.9	250.1
31°	248.5	248.7	248.5	248.5	248.5	248.8
31.5°	246.8	247.1	246.8	246.8	247.2	247.4
32°	245.1	245.6	245.1	245.2	245.5	245.5
32.5°	243.5	243.8	243.5	243.7	243.7	243.6
33°	241.9	241.8	241.9	242.2	242.0	242.0
33.5°	240.2	240.2	240.2	240.2	240.4	240.4
34°	238.4	238.6	238.4	238.3	238.7	238.6
34.5°	236.4	236.8	236.4	236.5	236.7	237.0
35°	234.7	234.8	234.7	234.7	234.7	235.1
35.5°	232.8	232.8	232.8	232.8	233.0	233.1
36°	230.9	231.1	230.9	230.8	231.1	231.0
36.5°	228.9	228.9	228.9	228.8	229.1	229.1
37°	226.8	226.9	226.8	226.8	227.0	227.1
37.5°	224.7	224.9	224.7	224.6	224.9	224.9
38°	222.6	222.8	222.6	222.6	222.9	222.8
38.5°	220.5	220.6	220.5	220.4	220.7	220.6
39°	218.2	218.4	218.2	218.3	218.3	218.3
39.5°	216.1	216.0	216.1	216.1	216.1	216.3
40°	213.9	213.8	213.9	213.8	214.0	214.2
40.5°	211.5	211.6	211.5	211.3	211.6	211.8
41°	209.1	209.5	209.1	209.1	209.2	209.4
41.5°	206.8	206.9	206.8	206.8	206.8	207.0
42°	204.4	204.6	204.4	204.5	204.5	204.5
42.5°	202.1	202.2	202.1	202.1	202.1	202.2
43°	199.5	199.8	199.5	199.5	199.7	199.8
43.5°	197.1	197.3	197.1	197.0	197.1	197.4



TEST NUMBER: P938662

CATALOG NUMBER: HLB4LSFS5-700LM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	189.6	189.7	189.6	189.5	189.5	189.8
45.5°	187.0	186.9	187.0	187.0	187.0	187.1
46°	184.4	184.3	184.4	184.5	184.5	184.4
46.5°	181.8	181.8	181.8	181.8	181.8	181.8
47°	179.2	179.2	179.2	179.2	179.1	179.1
47.5°	176.4	176.7	176.4	176.4	176.4	176.6
48°	173.8	174.0	173.8	173.8	173.8	174.0
48.5°	171.2	171.3	171.2	171.3	171.3	171.4
49°	168.5	168.7	168.5	168.6	168.7	168.8
49.5°	165.9	166.0	165.9	165.8	165.9	165.9
50°	163.3	163.3	163.3	163.1	163.1	163.1
50.5°	160.7	160.5	160.7	160.4	160.4	160.5
51°	157.8	157.9	157.8	157.8	157.8	157.8
51.5°	155.2	155.2	155.2	155.1	155.0	155.0
52°	152.4	152.5	152.4	152.4	152.4	152.4
52.5°	149.7	149.8	149.7	149.7	149.6	149.7
53°	147.1	147.1	147.1	146.9	147.0	147.1
53.5°	144.4	144.5	144.4	144.3	144.2	144.4
54°	141.7	141.9	141.7	141.5	141.4	141.5
54.5°	139.1	139.3	139.1	138.9	138.8	138.8
55°	136.5	136.5	136.5	136.2	136.2	136.4
55.5°	133.8	133.9	133.8	133.6	133.5	133.8
56°	131.1	131.1	131.1	130.9	130.8	130.9
56.5°	128.4	128.6	128.4	128.3	128.3	128.4
57°	125.8	125.9	125.8	125.6	125.7	125.7
57.5°	123.1	123.4	123.1	123.0	122.9	123.1
58°	120.6	120.6	120.6	120.4	120.3	120.5
58.5°	118.0	118.1	118.0	117.9	117.9	117.9
59°	115.5	115.5	115.5	115.3	115.2	115.2
59.5°	112.8	113.0	112.8	112.8	112.6	112.7
60°	110.3	110.5	110.3	110.3	110.1	110.2
60.5°	107.9	108.0	107.9	107.6	107.6	107.6
61°	105.3	105.4	105.3	105.2	105.1	105.1
61.5°	102.8	102.9	102.8	102.8	102.6	102.6
62°	100.4	100.4	100.4	100.3	100.2	100.1
62.5°	97.9	98.0	97.9	97.8	97.7	97.6
63°	95.4	95.5	95.4	95.3	95.2	95.2
63.5°	93.0	93.1	93.0	92.9	92.9	92.8
64°	90.7	90.7	90.7	90.6	90.5	90.4
64.5°	88.3	88.3	88.3	88.2	88.1	87.9
65°	86.0	86.0	86.0	85.9	85.8	85.6
65.5°	83.6	83.7	83.6	83.6	83.4	83.4
66°	81.2	81.4	81.2	81.2	81.1	81.1



TEST NUMBER: P938662

CATALOG NUMBER: HLB4LSFS5-700LM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	74.6	74.6	74.6	74.3	74.3	74.3
68°	72.3	72.4	72.3	72.2	72.1	72.1
68.5°	70.1	70.2	70.1	70.0	69.9	69.8
69°	68.0	68.0	68.0	67.9	67.7	67.7
69.5°	65.8	66.0	65.8	65.7	65.6	65.6
70°	63.7	63.9	63.7	63.6	63.5	63.4
70.5°	61.7	61.7	61.7	61.5	61.4	61.4
71°	59.6	59.7	59.6	59.4	59.3	59.3
71.5°	57.6	57.7	57.6	57.3	57.3	57.3
72°	55.5	55.7	55.5	55.3	55.3	55.3
72.5°	53.6	53.7	53.6	53.4	53.3	53.3
73°	51.7	51.7	51.7	51.5	51.3	51.4
73.5°	49.7	49.8	49.7	49.5	49.4	49.5
74°	47.8	48.0	47.8	47.5	47.5	47.5
74.5°	45.9	46.1	45.9	45.7	45.6	45.7
75°	44.1	44.2	44.1	43.9	43.8	43.8
75.5°	42.2	42.4	42.2	42.0	42.0	42.0
76°	40.3	40.6	40.3	40.2	40.1	40.2
76.5°	38.6	38.7	38.6	38.4	38.4	38.4
77°	36.9	37.0	36.9	36.7	36.6	36.7
77.5°	35.1	35.3	35.1	35.0	34.9	35.0
78°	33.4	33.6	33.4	33.2	33.2	33.2
78.5°	31.8	32.0	31.8	31.5	31.5	31.5
79°	30.1	30.3	30.1	29.9	29.9	29.9
79.5°	28.4	28.6	28.4	28.2	28.2	28.2
80°	26.8	27.0	26.8	26.6	26.5	26.6
80.5°	25.1	25.3	25.1	25.0	25.1	25.0
81°	23.6	23.7	23.6	23.4	23.4	23.4
81.5°	22.0	22.1	22.0	21.9	21.9	21.8
82°	20.5	20.6	20.5	20.3	20.3	20.3
82.5°	19.0	19.0	19.0	18.9	18.8	18.7
83°	17.5	17.5	17.5	17.3	17.2	17.2
83.5°	16.0	16.1	16.0	15.8	15.8	15.8
84°	14.5	14.6	14.5	14.4	14.3	14.3
84.5°	13.0	13.1	13.0	13.0	12.9	12.9
85°	11.6	11.7	11.6	11.5	11.5	11.5
85.5°	10.1	10.2	10.1	10.1	10.1	10.1
86°	8.7	8.8	8.7	8.7	8.7	8.7
86.5°	7.5	7.7	7.5	7.5	7.3	7.3
87°	6.3	6.7	6.3	6.3	6.1	5.9
87.5°	5.1	5.6	5.1	5.1	4.9	4.5
88°	4.2	4.6	4.2	3.9	3.7	3.6
88.5°	3.4	3.9	3.4	2.9	2.7	2.6



TEST NUMBER: P938662
CATALOG NUMBER: HLB4LSFS5-700LM-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-T8S5UU9





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°







21.5°	270.8	270.7	270.6	270.3	270.6	270.3	270.6	270.7	270.8	270.7	270.6
22°	270.1	269.8	269.7	269.6	269.6	269.6	269.7	269.8	270.1	269.8	269.7



44°	194.7	194.7	194.5	194.7	194.7	194.7	194.5	194.7	194.7	194.7	194.5
44.5°	192.3	192.2	192.0	192.1	192.2	192.1	192.0	192.2	192.3	192.2	192.0



66.5°	78.7	78.8	78.9	79.0	79.1	79.0	78.9	78.8	78.7	78.8	78.9
67°	76.5	76.6	76.6	76.8	76.9	76.8	76.6	76.6	76.5	76.6	76.6



89°	1.6	1.8	2.2	2.7	3.2	2.7	2.2	1.8	1.6	1.8	2.2
89.5°	0.7	1.2	1.7	2.1	2.5	2.1	1.7	1.2	0.7	1.2	1.7





21.5°	270.3	270.6	270.3	270.6	270.7	270.8
22°	269.6	269.6	269.6	269.7	269.8	270.1



44°	194.7	194.7	194.7	194.5	194.7	194.7
44.5°	192.1	192.2	192.1	192.0	192.2	192.3



66.5°	79.0	79.1	79.0	78.9	78.8	78.7
67°	76.8	76.9	76.8	76.6	76.6	76.5



89°	2.7	3.2	2.7	2.2	1.8	1.6
89.5°	2.1	2.5	2.1	1.7	1.2	0.7



(END OF REPORT)